

A SYNONYMY FOR *PSEUDOMETHOCA DONAEANAE* (COCKERELL & FOX) (HYMENOPTERA: MUTILLIDAE)¹

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Abstract.—*Pseudomethoca donaeanae* (Cockerell & Fox) was described in 1897 based on females only. Its known range is recorded as Arizona, California, New Mexico and Texas. *Pseudomethoca russeola* Mickel was described in 1924 based on a single male collected in Texas. Additional specimens examined here expand that range to include Arizona, Kansas and New Mexico. Numerous females of *P. donaeanae* were collected in Doña Ana County, New Mexico in 1992, as well as two males of *P. russeola* that were attracted to a caged female. This, and the similar geographic range, have led to the conclusion that these two are the same species. The name *P. donaeanae* has precedence over *P. russeola*. A complete synonymy is included.

Key Words.—Insecta, Hymenoptera, Mutillidae, *Pseudomethoca donaeanae*, *Pseudomethoca russeola*, taxonomy, synonymy.

Pseudomethoca donaeanae was first described by Cockerell & Fox (1897) as *Sphaerophthalma donae-anae*. The description was apparently made on the basis of four females collected in 1896 in the Mesilla Valley in Doña Ana County, New Mexico. The holotype is in the collection of the American Entomological Society in Philadelphia, and has been examined by this author. Mickel examined two additional female specimens from Arizona and California (1924), and seven female specimens from Arizona, New Mexico and Texas (1935). Until now, this species has been known only from these few female specimens.

Pseudomethoca russeola was described by Mickel (1924) on the basis of a single male collected on 4 May 1901 in San Diego, Texas. This holotype is in the collection of the United States National Museum in Washington, D.C., and has been examined by this author. No other specimen of this species has been recorded in the literature.

PSEUDOMETHOCA DONAEANAE (COCKERELL AND FOX)

Sphaerophthalma donae-anae Cockerell and Fox, 1897: 136. ♀

Mutilla donae-anae Fox, 1899: 224. ♀

Pseudomethoca Donae-Anae André, 1903: 28 ♀

Pseudomethoca russeola Mickel, 1924: 44. NEW SYNONYMY. ♂

Pseudomethoca donaeanae Krombein, 1979: 1302. ♀

Material Examined.—In addition to the type specimens mentioned above, the following material has been examined (all are females of *P. donaeanae* or males of *P. russeola*): U.S.A. ARIZONA. COCHISE Co.: Portal, 2 Sep 1959, H. E. Evans, 1 male. KANSAS. DOUGLAS Co.: 8 km E of Lawrence, 15 Aug–15 Sep 1988, W. T. Wcislo and R. L. Minckley, 1 male. NEW MEXICO. DOÑA ANA Co.: 3.2 km E of Radium Springs, 1 Sep 1992, D. G. Manley, 12 females; 3.2 km E of Radium Springs, 2 Sep 1992, D. G. Manley, 16 females and 2 males; 1.6 km E of Vado, 2 Sep 1992, D. G. Manley, 18 females; 3.2 km E of Radium Springs, 3 Sep 1992, D. G. Manley, 12 females. HIDALGO

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Co.: Rodeo, 18 Aug 1959, H. E. Evans, 1 female; Rodeo, 28 Aug 1959, H. E. Evans, 1 female and 1 male. TEXAS. BEXAR Co.: U-Bar Ranch, 9.6 km E of Castroville, 29 May 1992, D. G. Manley, 1 Male. DIMMIT Co.: Chaparral W. M. A., 20–30 May 1991, A. W. Hook, 1 male. FRIO Co.: 9.6 km SE of Pearsall, 7 Jul 1972, E. E. Grissell and J. Smith, 1 male. HIDALGO Co.: Bentsen Rio Grande Valley State Park, 13 Jun 1978, C. C. Porter, 1 male; Bentsen Rio Grande Valley State Park, 30 Nov–2 Dec 1978, E. E. Grissell and A. S. Menke, 1 male. KLEBERG Co.: Site 55, 10 Oct 1978, G. E. Gillaspay, 1 male.

DISCUSSION

Both the females of *P. donaeanae* and the males of *P. russeola* have been known from only a few specimens since their original descriptions. The known geographic ranges of southeastern Arizona, New Mexico and Texas are similar for the two. I have not examined the specimen from Calexico, California that was noted by Mickel (1924). Even if correctly identified, I find the collection data on that specimen to be suspect. I have collected extensively throughout Arizona and southern California, including the Calexico area, and have not found (or seen) specimens of either of these species from those areas. The female specimens of *P. donaeanae* and the male specimens of *P. russeola* collected by Evans in the Portal, Arizona/Rodeo, New Mexico area (only about 16 km apart) on or about the same collection dates add further evidence for the synonymy of these two species.

A female of *P. donaeanae* was collected on 2 Sep 1992 about 1.6 km E of Radium Springs, New Mexico. It was placed in a small, plastic cage from which the ends had been cut out and replaced with wire screen. Two males were attracted to the caged female and attempted to mate with her through the screen. They were subsequently captured a short time later and determined to be *P. russeola*. No other males were attracted to the caged female, although there were numerous males and females of other mutillid species in the area at the time. The use of caged females has been used previously to attract males, both in cases where the male was already known and where the male was unknown. Males are not always attracted to the caged females. However, in all cases in which males have been attracted to the caged females, they have been subsequently shown to be of a single species. And in cases where the males were previously known, they have always been of the same species as the caged female. Thus, the use of caged females is a reliable method for obtaining sex correlations among mutillid wasps.

CONCLUSIONS

The known geographic ranges for *P. donaeanae* and *P. russeola*, the present collection data, and the use of caged females for the attraction of conspecific males, all lead to the conclusion that these two are a single species. Because *P. donaeanae* has precedence over *P. russeola*, that name shall stand.

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